

**APPARATUS FOR DETERMINING DOPING CONCENTRATION OF A
SEMICONDUCTOR WAFER**

ABSTRACT OF THE INVENTION

An apparatus for measuring at least one electrical property of a semiconductor wafer includes a probe including a shaft having at a distal end thereof a conductive tip for electrically communicating with an object area of the semiconductor wafer. The apparatus further includes a device for applying an electrical stimulus between the conductive tip and the object area, and a device for measuring a response of the semiconductor wafer to the electrical stimulus and for determining from the response the at least one electrical property of the object area of the semiconductor wafer. A probe guard is included and surrounds the shaft of the probe adjacent the distal end of the probe. The probe guard also insulates the conductive tip from the semiconductor wafer.